

Agenda item: 01

Staff person handling: Chairman Bill Kennedy

Date/location: December 7, 2005 in Helena, MT

Item: **Approve commission minutes**

Background

The following minutes are submitted to the commission for review and approval:

- a. Conference call on November 14, 2005

Staff recommendations

Staff recommends approval

Notes/discussion

Commission action

Agenda item: 02

Staff person handling: Sandra Straehl, Rail, Transit and Planning Administrator

Date/location: December 7, 2005 - Helena MT

Item: **Montana Rest Area Plan status review**

Background

The Montana Rest Area Plan has guided commission and MDT decisions regarding Montana's rest areas since the 1980s. The plan originally consisted entirely of a map that showed existing and proposed rest area locations. However, in the late 1990s, in response to increasing complaints about Montana's rest areas (attachment A), MDT involved the public and representatives of key user groups in a comprehensive update of the plan to establish overall policy direction. The Transportation Commission adopted the updated plan in 1999.

The resulting changes in the quality and maintenance of our rest areas have produced a significant reduction in the number of complaints MDT receives about its rest areas. The public reaction to MDT's newest rest areas at Sweet Grass, Bozeman, Lolo Pass, Lost Trail Pass, and Dena Mora has also been overwhelmingly positive (attachment B) and we expect a similar response to the new Mosby rest area. Additional new rest areas at, Dearborn, Bearmouth, Crow Agency, Harlowton, and Lima are either under construction or in the design process.

The Montana Rest Area Planning Map (attachment C) shows existing rest areas as well as planned rest areas consistent with the policies in the original 1999 *Montana Rest Area Plan* and subsequent updates approved by the Transportation Commission. Attachment D highlights the recently completed rest areas with the year they have come on-line.

Although Montana's rest areas have improved over the last five years, funding limitations have caused delays in several planned rest area projects in order to complete critical highway projects. This has affected MDT's recent success in completing one major rest area improvement project per year. Because of this, the Transportation Commission last year asked MDT to commit to funding one major rest area improvement project per year. MDT staff is also developing a methodology based on factors including traffic levels, condition of existing facility, and proximity to existing updated facilities to recommend the sequencing of rest area improvements for consideration by the Commission when approving future Tentative Construction Programs.

In response to a recommendation from a performance audit of MDT's Rest Area Program by the Legislative Audit Division, MDT developed an annual review process of the *Rest Area Plan* and amended the plan to include a description of this process. The annual review process includes a report on the status of Montana's existing and planned rest areas (attachment E), technical edits to the Montana Rest Area Planning Map, and suggested changes to planned rest area locations.

Staff is not recommending any changes to planned rest area locations this year that would require commission approval. However, MDT has initiated a corridor study of rest area issues on Interstate 94 between Billings and Miles City that could lead to recommendations for changes next year. The study will analyze the condition of the existing aging facilities, examine potential future sites, and make recommendations for general design features.

The study will involve local elected officials, business leaders and the public to ensure the recommendations are consistent with area priorities and concerns. In addition, there may be recommendations regarding sequencing for the commission to consider during this fall's meeting on the Tentative Construction Program.

Summary

Attached is a copy of the current Montana Rest Area Planning Map and the annual Rest Area Status Report. The updated report provides detailed information about all Montana rest areas. The following technical edits to the Montana Rest Area Planning Map are based on input from district administrators and other MDT staff involved in rest area planning and maintenance:

- District 1 – Missoula
 - Lolo Pass (US-12/N-93, MP-0) – Change symbol to reflect an “*In-place Rest Area Maintained by Others*” and remove symbol reflecting “*Neighboring State Rest Area*”.
- District 2 – Butte
 - Lima (I-15, MP-10) – Move symbol for proposed rest area to the east side of the interstate as it will be constructed at MDT's existing maintenance yard.
 - North 19TH (I-90, MP-305) – Change name of facility from “N-19TH” to “*Bozeman*” to properly reflect the location.
- District 4 – Glendive
 - Mosby (MT-200/N-57, MP-159) – Change symbol from “*Proposed Rest Area-Future Construction*” to “*In-place Rest Area-State Maintained*” as Mosby will come on-line this summer.

Staff recommendations

There are no staff recommendations; this agenda item is for informational purposes and it fulfills the audit recommendation of reviewing the rest area plan annually and reporting to the commission.

Notes/discussion

Commission action

Agenda item: 03

Staff person handling: Sandra Straehl, Rail, Transit and Planning Administrator

Date/location: December 7, 2005 – Helena, MT

Item: **Wetland mitigation feasibility study**
Teller Wildlife Refuge north of Corvallis – Ravalli County

Background

This project is to conduct a wetland feasibility study for the purpose of developing wetland mitigation on the Teller Wildlife Refuge, located 3 miles north of the town of Corvallis in Ravalli County of the Missoula District.

MDT and Teller Wildlife Refuge personnel identified a potential site for MDT to develop wetland mitigation in the refuge. The area is a large drained wetland area currently being utilized for hay production that contains a number of drainage ditches, remnant wetland areas and a segment of channelized spring creek, which flows from south to north through the northern portion of the property. The intent is to restore hydrology to the former wetland areas within a 75 to 100-acre wetland conservation easement on the refuge.

The proposed wetland mitigation site is situated within the middle reaches of the Bitterroot River part of Watershed #3 – Lower Clark Fork River Basin and would assist in mitigating impacts associated with several proposed roadway reconstruction projects in the Missoula District, including: Conner N & S, Skalkaho Road, Florence East and other possible future MDT transportation projects. As the wetland credits at both the Tucker Crossing Ranch and Lee Metcalf Refuge wetland mitigation areas are being primarily utilized to mitigate wetland losses occurring with the US 93 Hamilton to Lolo projects, MDT foresees a need in the future for additional wetland credits in this portion of the watershed.

Environmental Services proposes to hire a consultant to conduct a wetland feasibility study to determine site suitability and maximize the number of wetland credit acres (40-50 acres). The cost estimate to perform the feasibility study is estimated at \$100,000, \$85,000 for consultant efforts and \$15,000 for preliminary engineering work done by MDT staff, which includes Environmental, Legal and Right-of-Way work.

Summary

It is important for MDT to pursue wetland projects ahead of roadway projects. Basically, if the mitigation is not in place at the time of the project construction, the ratio for mitigation increases. There are a number of other criteria that affect mitigation ratios, but having mitigation in place prior to impact will be required in almost all cases. By mitigating these sites now, it will allow the department to bank some wetland mitigation credits that could be used in a cost effective way on future projects. Currently, MDT is running in a negative wetlands balance situation on Conner North and South.

Staff recommendations

Staff recommends the Commission approve the addition of this project to the program.

Notes/discussion**Commission action**

Agenda item: 04

Staff person handling: Sandra Straehl, Rail, Transit and Planning Administrator

Date/location: December 7, 2005 in Helena, MT

Item: **Enhancement program on MDT Right-of-Way**

Kerr Dam Road – Bike Path – West of Polson and

Bike/ Pedestrian Path – North of Big Arm

Background

The Commission approves Community Transportation Enhancement Program (CTEP) projects that are located on or adjacent to state designated streets and roads. The following CTEP projects are funded with the enhancement set-aside of the Surface Transportation Program that is allocated by population to Montana local and tribal governments. The communities select projects for funding with their allocations and provide required non-federal match. The program is based on an agreement between MDT and Montana local and tribal governments.

Projects proposed for addition to the program are shown below:

1. *Kerr Dam Road – Bike Path – West of Polson*

This enhancement project will design and construct approximately 3700 lineal feet of 8-foot wide bike/pedestrian trail along the east side of MT 354 in Polson. The pathway will connect with the end of the existing sidewalk on MT Secondary 354 at the west city limits of Polson and extend south within the right-of-way of MT Secondary 354 to the intersection with Grenier Lane. The estimated total project costs are \$99,000, which consists of \$16,000 for preliminary engineering, \$77,000 for construction, and \$6,000 for construction engineering.

Including this project, Lake County will have obligated \$990,505 of the \$1,192,232 made available through the CTEP program.

2. *Bike/ Pedestrian Path – North of Big Arm*

This enhancement project will design and construct approximately 5800 lineal feet of 8-foot wide bike/pedestrian trail to connect Big Arm State Park with the community of Big Arm. The pathway will lie on the North and East side of US 93, which has ample right-of-way to allow construction. The estimated total project costs are \$155,000, which consists of \$20,000 for preliminary engineering, \$121,000 for construction, and \$14,000 for construction engineering.

Including this project, Lake County will have obligated \$1,124,704 of the \$1,192,232 made available through the CTEP program.

Summary

All work will be in accordance with current design standards and ADA requirements.

Staff recommendations

Staff recommends the Commission approve the addition of these projects to the program.

Notes/discussion**Commission action**

Agenda item: 05

Staff person handling: Sandra Straehl, Rail, Transit and Planning Administrator

Date/location: December 7, 2005 – Helena, MT

Item: **SAFETEA-LU on-system earmarks**
Zimmerman Trail and Bench Boulevard – Billings

Background

Attached are two projects that have received earmarked funding through the SAFETEA-LU authorization act. These projects will receive an annual allocation and funds can be transferred between named projects, so projects may be able to advance to construction as soon as they are ready, provided that other projects are not disadvantaged and all funding accounts are balanced by the end of fiscal year 2009. These two projects are located on the Urban Highway System within the Billings urbanized area and are new to the program. As such, both projects require commission approval.

Please note that MDT will bring other earmarked projects to the Commission for action as roles, responsibilities and pre-programming processes are established.

1. Zimmerman Trail – Billings (\$7 million)

The Zimmerman Trail Project will receive \$7 million in earmarked funds. The funds will be used toward reconstructing the existing 26-foot wide two-lane facility with an additional ascending lane and bike and pedestrian facilities. The project is located on U-1001, beginning at the junction with Rimrock Road and extending north to the junction with Montana 3 (RP 0.0 to 0.99). The Billings Urban Transportation Plan estimates the total cost for this project at \$10 million. Other funds such as city funds, STPU, MACI-Guaranteed, or another earmark may be necessary to complete the project.

This route is functionally classified as a “minor arterial” and is on the Urban Highway System. The project has been approved by the City of Billings and Yellowstone County through the Billings Metropolitan Planning process and added to the 2005-2009 Billings Transportation Improvement Program through amendment.

The issue regarding ownership of the route must be resolved by the city and county before the project is programmed and work begins.

MDT will bid, award and administer the construction project, but will not provide state matching funds, and will not administer the preliminary engineering or right-of-way phases. For preliminary engineering, the city plans to award a contract for design and environmental review from the department’s approved consultant list consistent with MDT processes. MDT will provide direct project oversight throughout project development. There will be an MDT project monitor assigned for all pre-construction phase work. This project is new to the program and as such requires commission approval.

2. *Bench Boulevard – Billings* (\$14.4 million)

Transportation improvements for the Bench Boulevard Connection and Corridor received \$17 million of earmarked funds in the SAFETEA-LU authorization act. The funds will be used to supplement MACI-Guaranteed funding for the previously programmed *6th Avenue North-Bench Connection* project that is under development and a new Bench Boulevard project. At this time, there is not an estimate to determine how much of this earmark will be used to complete the *6th Avenue Bench Connection* project (CN 4553).

This project will improve an important north-south route through the Billings Heights and accommodate increased traffic diverted from Main Street (US 87) following the construction of the *6th Avenue North-Bench Connection* project (CN 4553). The scope of the project includes the reconstruction of the existing two-lane facility to a three-lane facility with a continuous center turn lane and bicycle and pedestrian accommodations. The project is located on U-1036, beginning at the junction with Lake Elmo Drive and extending north to the junction with US 87 (RP 0.23 to 3.09).

This route is functionally classified as an “urban collector” and is on the Urban Highway System. The project has been approved by the City of Billings and Yellowstone County through the Billings Metropolitan Planning process and added to the 2005-2009 Billings Transportation Improvement Program through amendment.

MDT will bid, award and administer the construction project, will provide state matching funds, but will not administer the preliminary engineering or right-of-way phases. For preliminary engineering, the city plans to award a contract for design and environmental review from MDT’s approved consultant list consistent with MDT processes. MDT will provide direct project oversight throughout project development. There will be an MDT project monitor assigned for all pre-construction phase work.

The estimated total project cost is \$14.4 million plus incidental construction costs. It is uncertain how much of the earmark funds will be available for this project after the funding package for the *6th Avenue North-Bench Connection* project is complete.

This project is new to the program and as such requires commission approval.

Summary

SAFETEA-LU identified 33 individual earmarked projects in Montana. Some of these are on-system and some are off-system. This item is for two on-system projects worth \$21.4 million for *Zimmerman Trail* and *Bench Boulevard*. These two projects are new to the program and require commission action.

Staff recommendations

Staff recommends the commission approve the addition of these projects to the program.

Notes/discussion

Commission action

Agenda item: 06

Staff person handling: Sandra Straehl, Rail, Transit and Planning Administrator

Date/location: December 7, 2005 – Helena, MT

Item: **Construction projects on state urban system – City of Bozeman**

Background

Under M.C.A. 60-2-111 (“letting of contracts on state and federal aid highways”) any reconstruction or construction project located on a designated highway or a state highway, must be let to contract by the Transportation Commission. This includes those projects on designated or state highways within cities and towns. This statute exists to ensure safety of our system, protect transportation investments, and encourage better coordination between state and local infrastructure improvements. MDT staff reaches out to local governments twice each year in March and October, to solicit local projects on state systems to ensure compliance with this statute.

Summary

The City of Bozeman is planning to design and build a transportation improvement project on the State Urban System. The preliminary scope of this project is to reconstruct a three-lane facility with a center continuous left-turn lane. This project will include bike lanes, curb, gutter, sidewalks and luminaries. The Bozeman project will be funded with local bond funds, using contract labor. The local government has conducted a public involvement process consisting of a public meeting. In general, the public supports this project. Listed below are the location, scope, estimated costs, and type of labor used, along with location maps.

The projects will be designed with input and concurrence from MDT staff to the extent practicable. On behalf of Bozeman, as required by M.C.A. 60-2-111, planning staff is requesting that the Transportation Commission delegate authority to Bozeman to let and award the contracts for the projects listed below.

<i>Location</i>	<i>Type of work</i>	<i>Cost (estimated)</i>	<i>Year</i>	<i>Type of labor</i>
Durstun Road (U-1204)	Reconstruction	\$1,810,000	2006	Contract
From N. 7 th Avenue (U-1207) to N. 19 th Avenue (U-1201)				

Staff recommendations

Staff recommends the commission delegate its authority to let, award, and administer the contract for this project to Bozeman pending concurrence of MDT’s chief engineer.

Notes/discussion

Commission action

Agenda item: 07

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 - Helena, MT

Item: **Special speed zones**

Secondary 285 – Radersburg and U5220 – Fox Farm Road

Background

Staff has performed traffic and engineering studies for the following:

- a. Secondary 285 – Radersburg
- b. U-5220 – Fox Farm Road

Please see the attachments for more details.

Summary

The appropriate local government concurs with the recommendations put forth by MDT.

Staff recommendations

Staff recommends the commission approve the special speed zones as proposed.

Notes/discussion

Commission action



*Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001*

Memorandum

To: Loran Frazier, P.E. – Chief Engineer
Highways and Engineering Division

From: Duane E. Williams, P.E.
Traffic and Safety Engineer

Date: November 17, 2005

Subject: Secondary 285 - Radersburg
Speed Limit Recommendation For Commission Action

- ❑ At the request of Broadwater County Commissioners the Department conducted a speed limit investigation for the purpose of establishing a special speed limit configuration approaching the Community of Radersburg.
- ❑ Secondary 285 begins at an intersection with US 287 south of the Toston Bridge and continues west to the community of Radersburg. There are no approved special speed limits on record for this route. The speed limit changes from 70 mph to 25 mph at the community boundary. The roadway consists of two 12-foot travel lanes with no surfaced shoulder area. It was last reconstructed in 1975 and improved in 1995.
- ❑ In the last three years there have been 10 accidents reported on Secondary 285. The accident rate is 3.49 accidents per million vehicle miles traveled. This is above the statewide average. None of the accidents occurred within the community.
- ❑ The results of our investigation support the county's desire for a reduction in the speed limit approaching Radersburg. Based on the travel speeds and their relationship changes in the adjacent environment we submitted the following 45 mph – 35 mph speed limit recommendation to Broadwater County for review and comment. They concur with the following recommendation. Their comments are attached.
- ❑ A 35 mph speed limit beginning at station 13+00 project RS 86(4) and continuing east to station 21+00, an approximate distance of 800 feet.

A 45 mph speed limit beginning at station 21+00 project RS 86(4) and continuing east to station 29+00, an approximate distance of 800 feet.

The statutory 25 mph speed limit will remain in effect within the urban district. The 25 mph speed limit does not require action by the Montana Transportation Commission.

Report Submitted to Broadwater County Commissioners

In response to concerned citizens, Broadwater County Commissioners requested speed limit investigation on Secondary 285. The main issue of concern is that the speed limit changes from 70 mph to 25 mph with no “step down” in the speed limit configuration approaching the community of Radersburg. During an informational meeting, local residents voiced that motorists passing through Radersburg, particularly over the weekend are not reducing their speed. They are also unaware of the potential of encountering children or pedestrians along the roadway. At the conclusion of our meeting we informed those in attendance that we would study the entire route. We would also collect additional traffic data during a typical weekend to compare travel speeds from day to day and traffic volume. We would report our findings and recommendations to the county commissioners for review and comment.

Secondary 285 begins at an intersection with US 287 just south of the Toston Bridge. From this point the roadway continues west 9.4 miles to the community of Radersburg. At milepost 9.4 within the central area of the community the secondary route designation ends and the road continues west as a local route. This is also where the roadway surface changes from pavement to gravel. There are no approved special speed limits on record for the secondary road portion of this route.

Secondary 285 was reconstructed under project RS 86-4 in 1975 and overlaid in 1995. The roadway surface consists of two 12-foot travel lanes in each direction with no surfaced shoulder area. The first 6.5 miles of the route traverses flat terrain and is almost entirely straight in alignment. Along the remaining three miles of the route to the community of Radersburg, there are seven individual horizontal curves. Each curve is separated by a tangent segment of roadway. The last curve is located at the eastern edge of the community. With the exception of Radersburg the adjacent side culture consists of agricultural land with a few individual residences scattered along the roadway. The community of Radersburg consists of numerous residences and other buildings dispersed along both sides of the roadway over an approximate 2,000-foot segment. The level of development along Secondary 285 and its extension meets the definition to qualify as an urban district and the statutory speed limit of 25 mph.

Accident History

The accident history was reviewed for a three-year period from June 1, 2002 to May 31, 2005. During this period there were ten accidents reported along Secondary 285. The accident rate is 3.49 accidents per million vehicle miles traveled. The statewide average for rural secondary routes is 1.68 accidents per million vehicle miles traveled.

The accident experience consisted of nine single vehicle accidents and one head-on accident. One of the single vehicle accidents resulted in a fatality. This accident, the head-on accident and two others had alcohol listed as a contributing factor. All ten accidents occurred on bare and dry roads. Sixty percent (6 of 10) of the accident experienced occurred on either a Friday or Saturday.

The head-on, fatal and one other single vehicle accident occurred within the horizontal curve at milepost 6.7. Alcohol was listed as a contributing in all three of these accidents. There are advance “Curve” warning signs in place for this curve. A ball-bank study indicated that this curve can be comfortably traveled at speeds in the 65 mph to 70 mph range.

There were no accidents reported within the community of Radersburg.

Travel Speeds

Vehicular travel speeds were sampled along the entire route beginning near the intersection with US 287 and continuing west through the community of Radersburg. Spot speed samples were collected in the rural environment at approximate one mile intervals and at five locations within the boundaries of the posted 25 mph speed zone. An additional station was collected on the county road west of Radersburg. The following table depicts the 85th percentile speeds and the pace of the traffic by location.

Location	85 th Percentile Speeds	Pace of Traffic Stream
Milepost 1.0 - 70 mph zone	69 mph Westbound 71 mph Eastbound	(55 mph – 65 mph) 43% (58 mph – 68 mph) 37%
Milepost 2.0 - 70 mph zone	70 mph Westbound 70 mph Eastbound	(55 mph – 65 mph) 41% (58 mph – 68 mph) 42%
Milepost 3.0 - 70 mph zone	68 mph Westbound 73 mph Eastbound	(55 mph – 65 mph) 43% (58 mph – 68 mph) 35%
Milepost 4.0 - 70 mph zone	70 mph Westbound 73 mph Eastbound	(55 mph – 65 mph) 47% (58 mph – 68 mph) 39%
Milepost 5.0 - 70 mph zone	71 mph Westbound 72 mph Eastbound	(58 mph – 68 mph) 47% (58 mph – 68 mph) 40%
Milepost 6.0 - 70 mph zone	70 mph Westbound 70 mph Eastbound	(58 mph – 68 mph) 41% (55 mph – 65 mph) 37%
Milepost 7.0 - 70 mph zone	67 mph Westbound 71 mph Eastbound	(52 mph – 62 mph) 47% (55 mph – 65 mph) 36%
Milepost 8.0 - 70 mph zone	67 mph Westbound 69 mph Eastbound	(52 mph – 62 mph) 42% (58 mph – 68 mph) 35%
Milepost 8.8 - 70 mph zone	64 mph Westbound 60 mph Eastbound	(49 mph – 59 mph) 43% (46 mph – 56 mph) 41%
Milepost 9.0 - 70 mph zone	52 mph Westbound 54 mph Eastbound	(38 mph – 48 mph) 44% (38 mph – 48 mph) 41%

The following speed statistics were collected within the 25 mph speed zone and the community of Radersburg.

Location	85 th Percentile Speeds	Pace of Traffic Stream
East End of Radersburg MP 9.2 - 25 mph zone	39 mph Westbound 41 mph Eastbound	(23 mph – 33 mph) 49% (26 mph – 36 mph) 44%
Inside the Developed Area MP 9.3 - 25 mph zone	29 mph Westbound 32 mph Eastbound	(14 mph – 24 mph) 66% (20 mph – 30 mph) 55%

Center of Community MP 9.4 - 25 mph zone	28 mph Westbound 27 mph Eastbound	(17 mph – 27 mph) 66% (17 mph – 27 mph) 70%
Pavement to Gravel Trans. Milepost 9.45 - 25 mph zone	26 mph Westbound 25 mph Eastbound	(17 mph – 27 mph) 78% (14 mph – 24 mph) 83%
West End of Radersburg Milepost 9.55 - 25 mph zone	32 mph Westbound 32 mph Eastbound	(20 mph – 30 mph) 56% (20 mph – 30 mph) 53%
0.6-mile West of Radersburg No Posted Speed Limit	41 mph Westbound 42 mph Eastbound	(29 mph – 39 mph) 47% (26 mph – 36 mph) 56%

The travel speeds along the rural portion of the route from the intersection with US 287 to approximately 2,000 feet in advance of the community are typically at or below 70 mph. There is some variation in the travel speeds associated with changes in the alignment. These reductions in the speed are spot specific. Based on the 85th percentile speeds and the pace of the traffic stream collected at eight locations the 70 mph speed limit is appropriate for traffic operation along the route leading to the community.

There is a reduction in the travel speeds that takes place east of the community and the boundaries of the existing 25 mph speed zone. Within the main body of community (urban district) there is reasonable motorists are compliance in the 25 mph speed limit.

Attached is a graph of the daily 85th percentile speeds and volume of traffic at each location sampled during the course of this investigation. From that information we concluded that the typical travel speeds along Secondary 285 are uniform from day to day. It appears that the volume of traffic passing through the community increases on weekend days, and the number of trips generated within or to the community decreases on the weekends.

Conclusions and Recommendations

The results of this investigation support the community's desire for a special speed limit configuration. The speed profile indicates that motorists are reducing their travel speeds at the first signs of development in advance of the urban district. It also indicates that within the main body of the community the typical travel speeds are around 25 mph.

The current 70 mph to 25 mph speed limit transition is located a few hundred feet in front of the first residences encountered along the south side of the highway. From the information gathered in the speed profile and the relationship between it and the adjacent roadside we recommend moving the beginning of the 25 mph speed zone in to coincide with the environment having continuous residential development along both sides of the roadway. This will also align the 25 mph speed limit with the actual

urban district boundary. With that adjustment a 35 mph speed limit is recommended for the sparsely developed eastern fringes of the community, and a transitional 45 mph speed limit continuing out into the rural environment east of milepost 9.0.

The proposed 35 mph and 45 mph speed limits would be below the existing 85th percentile speeds, but still within 1 mph to 3 mph of the upper limit of the pace identified within their boundaries. If approved they will also give law enforcement a tool in which to distinguish the reasonable majority from those traveling outside the normal flow of traffic. This was a concern of the community.

In reference to the above average accident rate, the characteristics of the adjacent roadside also referred to, as the clear zone, can be unforgiving. Particularly for impaired motorists leaving the travel lanes. Once leaving the roadway making a safe recovery is quite difficult. Adverse roadway conditions and conflicts with animals were not listed as contributing factors in the accident experience.

A 35 mph speed limit beginning at station 13+00 project RS 86(4) and continuing east to station 21+00, an approximate distance of 800 feet.

A 45 mph speed limit beginning at station 21+00 project RS 86(4) and continuing east to station 29+00, an approximate distance of 800 feet.

The statutory 25 mph speed limit will remain in effect within the urban district. The 25 mph speed limit does not require action by the Montana Transportation Commission.

DEW:DRB:TRF:s285

attachments

copies: D.E. Williams
 D.R. Bailey

Montana Department of Transportation
Helena, Montana 59620-1001

Memorandum

To: Loran Frazier, P.E. – Chief Engineer
Highways and Engineering Division

From: Duane E. Williams, P.E.
Traffic and Safety Engineer

Date: November 18, 2005

Subject: U-5220 – Fox Farm Road
Speed Limit Recommendation

- ❑ Fox Farm Road serves a rural residential area located along the west side of the Missouri River south of Great Falls. Prior to being designated as an urban route Fox Farm Road was constructed by and is currently maintained by Cascade County. It is a 2-lane roadway with daily traffic volumes ranging from 3190 north of Dick Road to 1810 south of Dick Road.
- ❑ The posted 40 mph – 45 mph speed limit configuration was established by Cascade County in 1992. At that time only the northern portion of the study area was designated as a federal-aid urban route. This is the first time in which the speed limits on Fox Farm Road have been brought before the Montana Transportation Commission for review and action.
- ❑ An engineering and traffic investigation was conducted. As described in the report submitted to local officials. The results of that study supported a 45 mph – 55 mph speed limit configuration.
- ❑ In weighing the engineering and traffic investigation results with the County's previously approved resolutions and present desire to maintain the 40 mph and 45 mph speed limits we have arrived at the conclusion to recommend that the Montana Transportation Commission take action to validate the posted speed limits. Attached is a letter from Cascade County Commissioners and copies of previously approved resolutions. The following recommendation fulfills Cascade County's request and is supported by Department staff.

Recommendation

A 40 mph speed limit beginning 200 feet south of the intersection with East Fiesta Road (Great Falls city limits) and continuing south to a point 200 feet south of the intersection with Dick Road, an approximate distance of 1.477 miles.

A 45 mph speed limit beginning 200 feet south of Dick Road and continuing south to the end of the federal-aid urban route designation at the intersection with Fawn Drive, an approximate distance of .89-mile.

Engineering and Traffic Investigation Results

Cascade County Commissioners requested a speed limit investigation on Fox Farm Road (U-5220) from the Great Falls city limit boundary south to the intersection with Dick Road. Upon receiving the county's request for a study on their portion of the route, the District office contacted the city of Great Falls to gather their support for an investigation on the northern portion of the route. No word was ever received back from the City. Therefore, this investigation and the following information will focus only on the southern portion of the route that is located outside of Great Falls. It is the Department's policy that all speed limit investigations must be conducted with the consent of the local governing authority.

In conducting the preliminary research for this investigation we identified that there are no approved special speed limits on record for Fox Farm Road and that the federal-aid urban route designation was recently extended to Fawn Drive, 1.1 miles south of Dick Road. At the time of our investigation, this roadway had a posted speed limit of 40 mph beginning south East Fiesta Road and continuing to the intersection with Dick Road and a 45 mph speed limit posted south of Dick Road. The study area is maintained by Cascade County. However, the authority to set speed limits is under the jurisdiction of the Montana Transportation Commission.

Fox Farm Road serves a rural residential area located along the west side of the Missouri River south of Great Falls. Road-Log records indicate that this route was constructed by local forces in 1945. This roadway is paved and relatively narrow, as it consists of two 11-foot travel lanes with no surfaced shoulder area. There are numerous areas in which the roadway surface has been patched, and the roadway's surface is showing signs of breaking up in other areas. The roadway's horizontal alignment is straight, while the vertical alignment is flat to rolling.

Adjacent roadside culture is made up of agricultural land intermixed with scattered nearby residential development. The majority of the residential development in the area is located on the east side of the roadway. There are five intersections with local roads and numerous private approaches. The vast majority of these access points are located north of the intersection with Dick Road. Daily traffic volumes ranged from 3190 north of Dick Road to 1810 south of Dick Road.

Accident History

The accident history was reviewed for a three-year period from January 1, 2002 to December 31, 2004. During this period there were five accidents reported within the study area. The accident rate is 0.96 accidents per million vehicle miles traveled. This is below the statewide average of 1.73 accidents per million vehicle miles traveled for rural secondary highways. There were no accidents reported south of the intersection with Dick Road. The accident rate north of Dick Road is 1.68 accidents per million vehicle miles traveled.

All five of the accidents were single vehicle in type. Two of the accidents had alcohol listed as a contributing factor and two other accidents involved conflicts with wild animals. There are no definable trends that pin point a correctable condition.

Travel Speeds

Travel speeds were sampled all along Fox Farm Road beginning near the intersection with 10th Avenue South. Speed samples within the city were collected just in case Great Falls officials decided to pursue a formal study. However, as mentioned earlier we will focus only on the portion of U-5220 that is under the jurisdiction of Cascade County.

Between East Fiesta Road and Dick Road

Beginning at the southbound 40 mph speed limit sign 800 feet south of the intersection with East Fiesta Road the 85th percentile speeds were 46 mph in both directions. The pace of the traffic stream ranged between (37 mph – 47 mph) northbound and (34 mph – 44 mph) southbound with 75 percent of the traffic stream traveling within the pace. Just south of the intersection with 45th Avenue Southwest the 85th percentile speeds were 47 mph northbound and 45 mph southbound. The pace of the traffic stream was (37 mph – 47 mph) northbound and (34 mph – 44 mph) southbound with 74 percent to 80 percent of the traffic stream traveling within the pace. Further south near the intersection with Cherokee Drive the 85th percentile speeds were 52 mph in both directions. The pace of the traffic stream was (40 mph – 50 mph) in both directions with 63 percent to 66 percent of the traffic stream traveling within in pace.

Between Dick Road and Fawn Drive

Three hundred feet south of the intersection with Dick Road the 85th percentile speeds were 60 mph northbound and 47 mph southbound. The pace of the traffic stream ranged between (46 mph – 56 mph) northbound and (37 mph – 47 mph) southbound with 54 percent to 77 percent of the traffic stream traveling within the pace. Approximately 0.6-mile south of the intersection with Dick Road the 85th percentile speeds were 56 mph and 55 mph. The pace was (43 mph – 53 mph) consisting of 59 percent to 64 percent of the traffic stream.

North of Dick Road there is a large proportion of the traffic stream traveling within the pace indicating the traffic is moving in a uniform manner. At the first two locations sampled it was observed that densest portion of the speed sample was located in the upper half of the pace. At the third location motorists were concentrated more within the central portion of the pace. The speed statistics along this segment support a 45 mph speed limit.

Further to the south the typical travel speeds are higher. There is still a large proportion of the traffic stream traveling within the pace. Within the central portion of this segment the speed statistics support a 55 mph speed limit.

Conclusions and Recommendations

The information gathered in this investigation supports the need to establish an official special speed limit configuration south of the Great Falls urban district. Based on the distinction in the travel speeds associated with the level and the orientation of nearby residential development we recommend a 45 mph – 55 mph speed limit configuration.

In comparison to the posted speed limits along the route, the proposed speed limits recommended at the end of this report may be viewed as an increase. However, there are no approved special speed limits on record for the study area. Also, Cascade County did not specify intent or a desired speed limit(s) within their request. The following proposal to increase the posted speed limits along Fox Farm Road is in compliance with state statute.

Study Recommendation

A 45 mph speed limit beginning at straight-line diagram station 67+00 (just south of the intersection with East Fiesta Road) and continuing south to station 145+00 (200 feet south of the intersection with Dick Road), an approximate distance of 1.477 miles.

A 55 mph speed limit beginning at straight-line diagram station 145+00 and continuing south to the end of the federal-aid urban route designation at the intersection with Fawn Drive, an approximate distance of .89-mile.

DCB:DRB:TRF:u5220.rpt
attachments

cc: D.E. Williams
D. R. Bailey

Agenda item: 08

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 in Helena, MT

Item: **Letting lists**

Background

Staff will distribute the most current lists of upcoming projects slated for advertisement and bid letting.

Staff recommendations

Staff recommends approval of the letting lists.

Notes/discussion

Commission action

Agenda item: 09

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 in Helena, MT

Item: **Certificates of completion**
September and October 2005

Background

Attached is the certificate of completion for September and October 2005.

Staff recommendations

Staff recommends approval

Notes/discussion

Commission action

Agenda item: 10

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 – Helena, MT

Item: **Project change orders**

Background

Attached are change orders for October 2005.

Summary

<i>Month</i>	<i>Total</i>
October 2005	\$140,726.69
	\$140,726.69

Staff recommendation

Staff recommends approval.

Notes/discussion

Commission action

Agenda item: 11A

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 – Helena, MT

Item: **Liquidated damages**

CM 0204(4) *4th – Hickory to RR Xing – Anaconda*

Background

Hollow Contracting Inc of Butte, MT overran the contract time by 14 days. Hollow Contracting signed the Contractor's Final Acceptance on October 21, 2005 agreeing to the amount of liquidated damages on this project. Our recommendation is noted below.

Summary

Award Date:	Nov 15, 2004	Proceed Date:	Dec 20, 2004
Work Began:	Apr 11, 2005	Work Completed:	Oct 20, 2005
Contract Time:	45 working days	Work Extensions:	5 working days
Time Used:	64 working days	Overrun:	14 days
Contract Amount:	\$378,877.96		

Staff recommendations

We recommend assessing 14 days at \$967.00 per day for a total of \$13,538.00.

Notes/discussion

Commission action

Agenda item: 11B

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 - Helena, MT

Item: **Liquidated damages**

STPP 27-2(16)36 *Baker – North*

Background

Prince Inc of Forsyth, MT overran the contract time by 3 days. We wrote the contractor on September 20, 2005 of the overrun of contract time. They were informed they had 30 days in which to respond if they intended to request a waiver from the Commission. They were informed that if a written reply was not received within 30 days, the liquidated damages would stand. As there was no response from the contractor, our recommendation is noted below.

Summary

Award Date:	June 7, 2004	Proceed Date:	July 12, 2004
Work Began:	July 27, 2004	Work Completed:	Aug 19, 2005
Contract Time:	60 working days	Work Extensions:	0 working days
Time Used:	63 working days	Overrun:	3 days
Contract Amount:	\$2,111,111.11		

Staff recommendations

We recommend assessing 3 days at \$1,781.00 per day for a total of \$5,343.00.

Notes/discussion

Commission action

Agenda item: 11C

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 – Helena, MT

Item: **Liquidated damages**

STPS 474-1(6)0 *Desmet Interchange – W*

Background

JTL Group Inc- Missoula of Missoula, MT overran the contract time by 5 days. We wrote the contractor on September 20, 2005 of the overrun of contract time. They were informed they had 30 days in which to respond if they intended to request a waiver from the Commission. They were informed that if a written reply was not received within 30 days, the liquidated damages would stand. As there was no response from the contractor, our recommendation is noted below.

Summary

Award Date:	May 9, 2005	Proceed Date:	June 13, 2005
Work Began:	june 21, 2005	Work Completed:	Aug 26, 2005
Contract Time:	30 working days	Work Extensions:	2 working days
Time Used:	37 working days	Overrun:	5 days
Contract Amount:	\$2,111,111.11		

Staff recommendations

We recommend assessing 5 days at \$967.00 per day for a total of \$4,835.00.

Notes/discussion

Commission action

Agenda item: 11D

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 - Helena, MT

Item: **Liquidated damages**

IM 94-3(58)85 *Forsyth E & W (WB)*

Background

Prince Inc of Forsyth, MT overran the contract time by 6 days. We wrote the contractor on September 20, 2005 of the overrun of contract time. They were informed they had 30 days in which to respond if they intended to request a waiver from the Commission. They were informed that if a written reply was not received within 30 days, the liquidated damages would stand. As there was no response from the contractor, our recommendation is noted below.

Summary

Award Date:	April 5, 2004	Proceed Date:	May 3, 2004
Work Began:	May 26, 2004	Work Completed:	July 28, 2005
Contract Time:	75 working days	Work Extensions:	19 working days
Time Used:	100 working days	Overrun:	6 days
Contract Amount:	\$2,943,531.88		

Staff recommendations

We recommend assessing 6 days at \$1,781.00 per day for a total of \$10,686.00.

Notes/discussion

Commission action

Agenda item: 11E

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 - Helena, MT

Item: **Liquidated damages**

SFCS 347-1(2)0 *Jct. S – 288 - East*

Background

Hollow Contracting Inc of Butte, MT overran the contract time by 7 days. Hollow Contracting signed the Contractor's Final Acceptance on October 18, 2005 agreeing to the amount of liquidated damages on this project. Our recommendation is noted below.

Summary

Award Date:	Mar 7, 2005	Proceed Date:	Apr 4, 2005
Work Began:	May 16, 2005	Work Completed:	Sept 29, 2005
Contract Time:	45 working days	Work Extensions:	0 working days
Time Used:	52 working days	Overrun:	7 days
Contract Amount:	\$469,820.53		

Staff recommendations

We recommend assessing 7 days at \$967.00 per day for a total of \$6,769.00.

Notes/discussion

Commission action

Agenda item: 11F

Staff person handling: Loran Frazier, Chief Engineer

Date/location: December 7, 2005 - Helena, MT

Item: **Liquidated damages**

NHTSA-STPP 0002(454) – Safety Improvements Somers Area

And SFCP-STPHS 82-1(3)1 – Somers – East

Background

JTL Group Inc- Kalispell of Kalispell, MT overran the contract time by 22 days. We wrote the contractor on September 20, 2005 of the overrun of contract time. They were informed they had 30 days in which to respond if they intended to request a waiver from the Commission. They were informed that if a written reply was not received within 30 days, the liquidated damages would stand. As there was no response from the contractor, our recommendation is noted below.

Summary

Award Date:	Oct 6, 2003	Proceed Date:	Nov 10, 2003
Work Began:	Nov 10, 2003	Work Completed:	Aug 18, 2005
Contract Time:	100 working days	Work Extensions:	22 working days
Time Used:	144 working days	Overrun:	22 days
Contract Amount:	\$2,111,111.11		

Staff recommendations

We recommend assessing 22 days at \$1,781.00 per day for a total of \$39,182.

Notes/discussion

Commission action

Agenda item: 12

Staff person handling: Jim Lynch, Director

Date/location: December 7, 2005 in Helena, MT

Item: **Commission Discussion**

Agenda item: 13

Staff person handling: Chairman Kennedy

Date/location: December 7, 2005 in Helena, MT

Item: **Public comment**

Background

Agenda item: 14

Staff person handling: Chairman Kennedy

Date/location: December 7, 2005 in Helena, MT

Item: **Set commission schedule for upcoming meetings**

Background

At the November 1, 2005 meeting, Chairman Kennedy proposed the following dates for commission meetings in 2006:

1. January 18-19
2. March 1-2
3. April 12-13
4. May 24-25
5. June 28-29
6. August 2-3
7. September 13-14
8. October 25-26
9. December 6-7

Staff proposes the following dates for the meetings associated with developing the Tentative Construction Program (TCP):

Prep meeting	Include in October 25-26, 2006 meeting
Discuss individual districts	November 13-16, 2006
Final approval of TCP	November 17, 2006

Conference calls to award projects are noted in the third column below. Calls will be scheduled for 10 – 10:30 am.

2006		
Advertisement Date	Bid Letting Date	Commission Award Date
December 29, 2005	January 26, 2006	<u>February 6, 2006</u>
January 26, 2006	February 23, 2006	March 6, 2006
March 2, 2006	March 30, 2006	April 10, 2006
March 30, 2006	April 27, 2006	May 8, 2006
April 27, 2006	May 25, 2006	June 5, 2006
May 25, 2006	June 22, 2006	July 3, 2006
June 22, 2006	July 20, 2006	July 31, 2006
July 20, 2006	August 17, 2006	August 28, 2006
August 24, 2006	September 21, 2006	October 2, 2006
October 5, 2006	November 2, 2006	November 13, 2006
November 9, 2006	December 7, 2006	December 18, 2006

Commission action